



STIC Search Report

EIC 3600

STIC Database Tracking Number: 144367

**TO: Igor Borissov
Location: CPK 5 7C22
Art Unit : 3629
Tuesday, February 08, 2005**

Case Serial Number: 09/840451

**From: Bode Akintola
Location: EIC 3600
PK5-Suite 804, 8A01
Phone: 308-6150**

Olabode.akintola@uspto.gov

Search Notes

Examiner Igor,

Please find enclosed the results of your search request.

If you need a refocus, let me know.

Thanks,

Bode



Set	Items	Description
S1	10	AU=(KAWAMURA K? OR KAWAMURA, K?)
S2	1719816	HEAT? ? OR HEATING OR COOLING OR AIRCONDITION? OR AIR()CON- DITION?
S3	7128967	TRACK? OR TRACING OR MONITOR? OR TRACE? ?
S4	361483	(USE OR USEAGE OR USAGE) (4N) (ENERGY OR POWER OR UTILIT???)
S5	73317	S2(4N) (UNIT? ? OR DEVICE? ? OR APPLIANCE? ? OR GADGET? ?)
S6	6484	S3(5N) S4
S7	1258	S6(10N) (ONLINE OR ON()LINE OR INTERNET OR INTRANET? OR NET- WORK? ? OR SERVER? ? OR WEB? OR PORTAL? OR WWW OR CYBER? OR E- LECTRONIC?)
S8	14	S7(10N) S2
S9	6	S7(S) S5
S10	10	S8 NOT S9
S11	7	RD (unique items)

? show file

File 9:Business & Industry(R) Jul/1994-2005/Feb 07
(c) 2005 The Gale Group

File 15:ABI/Inform(R) 1971-2005/Feb 07
(c) 2005 ProQuest Info&Learning

File 16:Gale Group PROMT(R) 1990-2005/Feb 08
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File 148:Gale Group Trade & Industry DB 1976-2005/Feb 07
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File 160:Gale Group PROMT(R) 1972-1989
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File 275:Gale Group Computer DB(TM) 1983-2005/Feb 08
(c) 2005 The Gale Group

File 621:Gale Group New Prod.Annou.(R) 1985-2005/Feb 08
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(c) 2005 Business Wire.

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(c) 2005 PR Newswire Association Inc

File 624:McGraw-Hill Publications 1985-2005/Feb 07
(c) 2005 McGraw-Hill Co. Inc

File 634:San Jose Mercury Jun 1985-2005/Feb 06
(c) 2005 San Jose Mercury News

File 810:Business Wire 1986-1999/Feb 28
(c) 1999 Business Wire

File 813:PR Newswire 1987-1999/Apr 30
(c) 1999 PR Newswire Association Inc

9/3,K/1 (Item 1 from file: 9)
DIALOG(R)File 9:Business & Industry(R)
(c) 2005 The Gale Group. All rts. reserv.

2508321 Supplier Number: 02508321 (USE FORMAT 7 OR 9 FOR FULLTEXT)
TELSTRA DEMONSTRATES HOME NETWORKING WITH IHG
(Telstra employed IHG Ltd's technology in a demonstration of its new home
appliance networking service)
Exchange Telecommunications Newsletter, v 11, n 25, p N/A
July 02, 1999
DOCUMENT TYPE: Newsletter (Australia)
LANGUAGE: English RECORD TYPE: Fulltext
WORD COUNT: 497

(USE FORMAT 7 OR 9 FOR FULLTEXT)

TEXT:

...power lines. Jeeves enables the home owner to monitor security devices,
and control lights, electrical **appliances**, **air conditioning** and hot
water services. IHG Executive Chairman, Rob Rohrlach said he anticipated
growing interest from...

...valuation report by technology consultants Cutler & Co. Rohrlach said:
"Service providers, such as telcos and **energy utilities**, can use the
Gateway to **monitor** the delivery of services, such as voice, **Internet**,
cable TV and power. This product is particularly suitable for mass
application in new urban...

9/3,K/2 (Item 1 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)
(c) 2005 ProQuest Info&Learning. All rts. reserv.

02231654 82918837
**Power woes spark action: Electricity, natural-gas-supply deregulation
issues energize operators, trade groups**
Liddle, Alan J
Nation's Restaurant News v35n40 PP: 84-86+ Oct 1, 2001
ISSN: 0028-0518 JRNL CODE: NRN
WORD COUNT: 2413

...TEXT: than a year."

Other foodservice operators are trying all manner of technology intended to
closely **monitor** and manage **energy usage** at the restaurant level and
across the enterprise, including **Internet**-based systems for remotely
diagnosing and cycling rooftop **heating**, ventilation and **air -
conditioning units**.

9/3,K/3 (Item 1 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
(c) 2005 The Gale Group. All rts. reserv.

09052003 Supplier Number: 78902513 (USE FORMAT 7 FOR FULLTEXT)
Power woes spark action.
Liddle, Alan J.
Nation's Restaurant News, v35, n40, p84
Oct 1, 2001
Language: English Record Type: Fulltext

Document Type: Magazine/Journal; Trade
Word Count: 2477

... than a year."

Other foodservice operators are trying all manner of technology intended to closely **monitor** and manage **energy usage** at the restaurant level and across the enterprise, including **Internet** -based systems for remotely diagnosing and cycling rooftop **heating** , ventilation and **air - conditioning units** .

9/3,K/4 (Item 2 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
(c) 2005 The Gale Group. All rts. reserv.

07505513 Supplier Number: 62381110
Builder gives 'smart house' a brain for less than \$1,000.
Fogarty, Thomas A.
USA Today, p1B(1)
May 9, 2000
Language: English Record Type: Abstract
Document Type: Newspaper; General

ABSTRACT:

...Broad will introduce a house with a wiring option that will enable homeowners to control **heating** , **cooling** , lighting and **appliances** through the **Internet** . The system is capable of **monitoring energy use** by major appliances and homeowners are informed of any problem which can arise by e...

9/3,K/5 (Item 1 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2005 The Gale Group. All rts. reserv.

13890620 SUPPLIER NUMBER: 78902513 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Power woes spark action.
Liddle, Alan J.
Nation's Restaurant News, 35, 40, 84
Oct 1, 2001
ISSN: 0028-0518 LANGUAGE: English RECORD TYPE: Fulltext
WORD COUNT: 2477 LINE COUNT: 00205

... level and across the enterprise, including Internet-based systems for remotely diagnosing and cycling rooftop **heating** , ventilation and **air - conditioning units** .

9/3,K/6 (Item 1 from file: 160)
DIALOG(R)File 160:Gale Group PROMT(R)
(c) 1999 The Gale Group. All rts. reserv.

00830668
HE Butt Grocery (Corpus Christi, Tex) is testing a dehumidification system combined with a refrigeration experiment it is conducting in cooperation with the DOE at one of its stores.
Supermarket News October 18, 1982 p. 19

...back into the store.

11/3,K/1 (Item 1 from file: 9)
DIALOG(R)File 9:Business & Industry(R)
(c) 2005 The Gale Group. All rts. reserv.

2793734 Supplier Number: 02793734
Builder gives 'smart house' a brain for less than \$1,000
(Kaufman & Broad, a home builder, is to start offering wiring option for so-called "smart houses")
USA Today, p 1B
May 09, 2000
DOCUMENT TYPE: National Newspaper ISSN: 0161-7389 (United States)
LANGUAGE: English RECORD TYPE: Abstract

ABSTRACT:
...wiring option for so-called "smart houses," which will allow the control of wiring, lighting, heating and cooling through the Internet. The product, called Aladn, also monitors appliances' energy use and sends a message to homeowners via e-mail should problems arise. The product complements...

11/3,K/2 (Item 1 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)
(c) 2005 ProQuest Info&Learning. All rts. reserv.

02301459 101681596
PRWs shocked by energy costs
Hartnett, Michael
Frozen Food Age v50n6 PP: 46, 49 Jan 2002
ISSN: 0016-2191 JRNL CODE: FFA
WORD COUNT: 1991

...TEXT: California, for example, they didn't have the blistering heat so [consumers] weren't running air conditioners so much."

Dower, whose company provides web-based energy information management to help PRWs monitor energy costs and usage, was asked if there are any villains within this energy nightmare.

"Although the answer varies...

11/3,K/3 (Item 2 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)
(c) 2005 ProQuest Info&Learning. All rts. reserv.

00953451 96-02844
Broadband networking energizes California utility company
Anonymous
Telecommunications (Americas Edition) v28n12 PP: 37 Dec 1994
ISSN: 0278-4831 JRNL CODE: TEC
WORD COUNT: 536

...TEXT: network also allows the company to offer new services that ere never before possible. Home energy use audits and monitoring are now handled remotely over the network. For those customers interested in the service, the company automatically monitors the customer's power usage, such as air conditioning, and regulates the usage during peak periods. The savings generated from this energy management are...

11/3,K/4 (Item 1 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
(c) 2005 The Gale Group. All rts. reserv.

08700070 Supplier Number: 75318277 (USE FORMAT 7 FOR FULLTEXT)
Tomorrow's Entrepreneur. (Brief Article) (Statistical Data Included)
Inc., p94
May 29, 2001
Language: English Record Type: Fulltext
Article Type: Brief Article; Statistical Data Included
Document Type: Magazine/Journal; General
Word Count: 682

... home attics to use in heating domestic hot water and swimming pools, and for space **heating** .
Silicon Energy Corp. develops and sells **Web** -enabled software that allows businesses to **monitor** and adjust **power usage** remotely.
Real Goods Trading Corp. retails and installs wind turbines and photovoltaic systems and also...

11/3,K/5 (Item 2 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
(c) 2005 The Gale Group. All rts. reserv.

07599362 Supplier Number: 63609653 (USE FORMAT 7 FOR FULLTEXT)
SEARS AND AOL LOOK TO BUILD TOMORROW'S 'SMART HOMES'.
Do-It-Yourself Retailing, v178, n5, p19
May, 2000
Language: English Record Type: Fulltext
Document Type: Magazine/Journal; Trade
Word Count: 168

... Dennis Honan, vice president and general manager of Sears Online, says, "By connecting a home **air conditioning** system to the **Internet** , we can **monitor** its **energy usage** for efficiency, diagnose system problems or even notify a consumer of a potential problem before...

11/3,K/6 (Item 3 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
(c) 2005 The Gale Group. All rts. reserv.

06679066 Supplier Number: 55902572 (USE FORMAT 7 FOR FULLTEXT)
Harnessing Energy Information.
SULLIVAN, C. C.
Energy User News, v24, n6, p1
June, 1999
Language: English Record Type: Fulltext
Document Type: Magazine/Journal; Trade
Word Count: 4053

... of energy management more economical and easier for energy-motivated building owners.

Metering and Monitoring **Heat**
The Swedish energy utility, Birka Energi, is now **monitoring heat** output for its **utility network** . While developed for **use by utilities** and district **energy** providers, the system would be an appropriate way for industrial and large commercial endusers to...

11/3,K/7 (Item 1 from file: 20)
DIALOG(R)File 20:Dialog Global Reporter
(c) 2005 The Dialog Corp. All rts. reserv.

16989682

"Thinking" tower will be marvel of high-tech

Bob Wilson

ABIX - AUSTRALASIAN BUSINESS INTELLIGENCE (COURIER-MAIL) , p40

June 01, 2001

JOURNAL CODE: WTCM LANGUAGE: English RECORD TYPE: ABSTRACT

WORD COUNT: 86

... company Bazcan and Johnson Controls of the US to integrate computerised building management systems and **Internet** technology into the building. Among other things, the technology will **monitor energy** needs, **use** and costs, **air conditioning** , lighting and fire and security risks.
?

Set	Items	Description
S1	1380	AU=(KAWAMURA K? OR KAWAMURA, K?)
S2	657588	HEAT? ? OR HEATING OR COOLING OR AIRCONDITION? OR AIR()CON- DITION?
S3	673595	TRACK? OR TRACING OR MONITOR? OR TRACE? ?
S4	2167446	ONLINE OR ON()LINE OR INTERNET OR INTRANET? OR NETWORK? ? - OR SERVER? ? OR WEB? OR PORTAL? OR WWW OR CYBER? OR ELECTRONI- C?
S5	1736809	USE OR USEAGE OR USAGE
S6	2440416	USER? ? OR CONSUMER? OR PERSON? OR INDIVIDUAL? OR MEMBER? - OR SOMEONE OR ANYONE OR PEOPLE? OR CUSTOMER? OR PARTY OR PART- IES OR BUYER? OR CLIENT?
S7	43092	S5(4N) (ENERGY OR POWER OR UTILIT???)
S8	399	S3(5N)S7
S9	50	S8 AND S2
S10	11	S9 AND S6
S11	44	(S9 OR S10) NOT PY>2001
S12	44	S11 NOT PD=20010424:20050208
S13	42	RD (unique items)
File	2:INSPEC	1969-2005/Jan W5 (c) 2005 Institution of Electrical Engineers
File	35:Dissertation Abs Online	1861-2005/Jan (c) 2005 ProQuest Info&Learning
File	65:Inside Conferences	1993-2005/Feb W1 (c) 2005 BLDSC all rts. reserv.
File	99:Wilson Appl. Sci & Tech Abs	1983-2004/Nov (c) 2005 The HW Wilson Co.
File	474:New York Times Abs	1969-2005/Feb 07 (c) 2005 The New York Times
File	475:Wall Street Journal Abs	1973-2005/Feb 07 (c) 2005 The New York Times
File	583:Gale Group Globalbase(TM)	1986-2002/Dec 13 (c) 2002 The Gale Group
File	256:TecInfoSource	82-2004/Dec (c) 2004 Info.Sources Inc

13/5/1 (Item 1 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2005 Institution of Electrical Engineers. All rts. reserv.

6271549 INSPEC Abstract Number: B1999-07-8540E-003

Title: Monitoring energy consumption in single-family houses

Author(s): Westergren, K.-E.; Hogberg, H.; Norlen, U.

Author Affiliation: Centre for Built Environ., R. Inst. of Technol., Gavle, Sweden

Journal: Energy and Buildings vol.29, no.3 p.247-57

Publisher: Elsevier,

Publication Date: March 1999 Country of Publication: Switzerland

CODEN: ENEBDR ISSN: 0378-7788

SICI: 0378-7788(199903)29:3L:247:MECS;1-U

Material Identity Number: E299-1999-002

U.S. Copyright Clearance Center Code: 0378-7788/99/\$20.00

Document Number: S0378-7788(98)00065-6

Language: English Document Type: Journal Paper (JP)

Treatment: Theoretical (T)

Abstract: A technical and statistical solution to the problem of obtaining timely and reliable estimates of end-use energy consumption in single-family houses is presented. This approach is called "The Energy Barometer" to allude to its possibility to follow the "pressure" on the energy market. Internet-based communication techniques are used to **monitor** building **energy** end- use at short time-intervals. We describe how this new technology is combined with statistical methods based on energy signature models into a system. Measured energy use from a random sample of houses is standardized for each investigated house by (i) statistically regressing energy data against climate data, and (ii) using climate data for a "normal" year together with the obtained regression equation to determine average annual energy use. The results are generalized to apply for the studied building stock by using a weighting procedure. (27 Refs)

Subfile: B

Descriptors: energy measurement; monitoring; power consumption; space heating ; statistical analysis

Identifiers: energy consumption monitoring; single-family houses; end-use energy consumption; The Energy Barometer; Internet-based communication techniques; building energy end-use; statistical methods; energy signature models; energy use measurement; statistically regressing energy data; climate data; regression equation; average annual energy use; weighting procedure

Class Codes: B8540E (Space heating); B7310F (Power and energy measurement); B0240Z (Other topics in statistics)

Copyright 1999, IEE

13/5/2 (Item 2 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2005 Institution of Electrical Engineers. All rts. reserv.

5721716

Title: A thin line [LCD screens]

Author(s): Laing, G.

Journal: Personal Computer World vol.20, no.10 p.116-17, 119, 121-2

Publisher: VNU Business Publications,

Publication Date: Oct. 1997 Country of Publication: UK

CODEN: PCWODU ISSN: 0142-0232

SICI: 0142-0232(199710)20:10L:116:TLS;1-Z

Material Identity Number: P270-97009

Language: English Document Type: Journal Paper (JP)

Treatment: Practical (P); Product Review (R)

Abstract: LCD monitors save space, use less power, create less heat and look great, but they aren't cheap. Reviews the Hitachi Super TFT LCD, Iiyama ProLite 35, NEC MultiSync LCD400, Panasonic PanaFlat LC40, Texan CrystalVision 650, and ViewSonic Viewpanel VP140. (0 Refs)

Subfile: D

Descriptors: buyer's guides; computer displays; equipment evaluation; flat panel displays; liquid crystal displays

Identifiers: LCD monitors; Hitachi Super TFT LCD; Iiyama ProLite 35; NEC MultiSync LCD400; Panasonic PanaFlat LC40; Texan CrystalVision 650; ViewSonic Viewpanel VP140

Class Codes: D5030 (Printers and other peripherals)

Copyright 1997, IEE

13/5/3 (Item 3 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2005 Institution of Electrical Engineers. All rts. reserv.

5640173 INSPEC Abstract Number: A9717-2844-003

Title: Continuous measurement of iodine concentration in the primary coolant of a nuclear power plant

Author(s): Kuroze, Y.; Yamada, M.; Shintani, H.; Nunoko, A.; Murakami, R.

Author Affiliation: Kansai Electr. Power Co. Ltd., Japan

Journal: IEEE Transactions on Nuclear Science Conference Title: IEEE Trans. Nucl. Sci. (USA) vol.44, no.3, pt.1 p.760-3

Publisher: IEEE,

Publication Date: June 1997 Country of Publication: USA

CODEN: IETNAE ISSN: 0018-9499

SICI: 0018-9499(199706)44:3:1L.760:CMIC;1-N

Material Identity Number: I047-97005

U.S. Copyright Clearance Center Code: 0018-9499/97/\$10.00

Conference Title: 1996 Nuclear Science Symposium and Medical Imaging Conference (NSS/MIC)

Conference Date: 3-9 Nov. 1996 Conference Location: Anaheim, CA, USA

Language: English Document Type: Conference Paper (PA); Journal Paper (JP)

Treatment: Experimental (X)

Abstract: Kansai Electric Power Company, Ltd. together with four other utilities in Japan (Kyushu EPCO, Shikoku EPCO, Hokkaido EPCO, JAPCO) and Nuclear Electric Ltd. have developed a reliable on-line automated Iodine Concentration Monitoring System (IMS) for use at nuclear power plants. This IMS uses recent technological advances to enable the detection of even very low iodine concentrations in the reactor coolant water. A patent has recently been issued to NEL for this system design. The EGS-4 Monte Carlo simulation code was used to optimize the design of this IMS. This paper describes how the EGS-4 code was used as a design tool for the IMS and its various components. (3 Refs)

Subfile: A

Descriptors: fission reactor coolants; fission reactor cooling; fission reactor safety; iodine; Monte Carlo methods

Identifiers: I concentration measurement; primary coolant; nuclear power plant; Iodine Concentration Monitoring System; Monte Carlo; EGS-4 code

Class Codes: A2844 (Fission reactor protection systems, safety and accidents); A2843B (Cooling and heat recovery in fission reactors); A2842N (Fission reactor coolants)

Copyright 1997, IEE

13/5/4 (Item 4 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2005 Institution of Electrical Engineers. All rts. reserv.

5598900 INSPEC Abstract Number: A9714-2841-012

Title: Monitoring and analysis of nuclear power plant signals based on nonlinear dynamical methodology

Author(s): Suzudo, T.; Turkcan, E.; Verhoef, H.

Author Affiliation: JAERI, Ibaraki, Japan

Journal: Journal of Nuclear Science and Technology vol.34, no.3 p. 240-7

Publisher: Atomic Energy Soc. Japan,

Publication Date: March 1997 Country of Publication: Japan

CODEN: JNSTAX ISSN: 0022-3131

SICI: 0022-3131(199703)34:3L:240:MANP;1-V

Material Identity Number: J006-97005

Language: English Document Type: Journal Paper (JP)

Treatment: Theoretical (T)

Abstract: The spatial correlation of a trajectory in the state space drawn by a dynamical system gives the information (fractal) dimension of the system, and enables the onset of the limit-cycle (or persistent) oscillation to be examined. An on-line monitoring system with this methodology was established for a PWR-type nuclear power plant (NPP). The potential use of this methodology in monitoring an NPP was tested from two actual situations in which the anomaly developed. The spatial correlations of various NPP signals under normal operating conditions were calculated, yielding information unobtainable by a conventional linear methodology. For example, results indicated that the coolant pump vibration was not linearly stabilized, that is, it was a limit-cycle oscillation. A swelling oscillation in the pressurizer pressure was also discovered by this methodology. (11 Refs)

Subfile: A

Descriptors: fission reactor cooling ; fission reactor monitoring; fission reactor theory; fractals; nonlinear dynamical systems

Identifiers: nuclear power plant; state space trajectory; information dimension; fractal dimension; limit-cycle oscillation; persistent oscillation; normal operating conditions; coolant pump vibration; swelling oscillation; pressurizer pressure; nonlinear dynamics; reactor signals

Class Codes: A2841 (Fission reactor theory and design); A2850G (Light water reactors); A0547 (Nonlinear dynamical systems and bifurcations); A0555 (Fractals); A2843B (Cooling and heat recovery in fission reactors)

Copyright 1997, IEE

13/5/5 (Item 5 from file: 2)

DIALOG(R)File 2:INSPEC

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5262714 INSPEC Abstract Number: B9606-8540E-001, C9606-7410B-096

Title: A weather-daytyping procedure for disaggregating hourly end-use loads in an electrically heated and cooled building from whole-building hourly data

Author(s): Bou-Saada, T.E.; Haberl, J.S.

Author Affiliation: Energy Syst. Lab., Texas A&M Univ., College Station, TX, USA

Conference Title: Proceedings of the 30th Intersociety Energy Conversion Engineering Conference (IEEE Cat. No.95CH35829) Part vol.2 p.349-55 vol.2

Editor(s): Yogi Goswami, D.; Kannberg, L.D.; Mancini, T.R.; Somasundaram, S.

Publisher: ASME, New York, NY, USA

Publication Date: 1995 Country of Publication: USA 3 vol.

(xxiv+777+xxi+639+xx+476) pp.

ISBN: 0 7918 1221 9 Material Identity Number: XX96-00365

Conference Title: Proceedings of 30th Intersociety Energy Conversion Engineering Conference

Conference Sponsor: IEEE; AIChE; ANS; SAE; AIAA; ASME

Conference Date: 30 July-4 Aug. 1995 Conference Location: Orlando, FL, USA

Language: English Document Type: Conference Paper (PA)

Treatment: Theoretical (T)

Abstract: Hourly **monitoring** of a building's **energy use** has been shown to be an effective method for verifying building computer simulations. Methods have been developed to classify hourly whole-building data into daytypes or load shapes. One method that has proven to be effective includes daytyping by weather-daytypes. In order to improve upon previously established techniques, this paper presents an improved weather daytyping procedure that is capable of disaggregating a whole-building electricity signal into hourly end-use loads. This methodology utilizes "representative days", to designate the nonweather dependent building base load for occupied and unoccupied hours which is then sorted into two additional weather-daytypes; one for the **heating** period and one for the **cooling** period. This method provides six end-use categories including: weekday/weekend, **heating**, **cooling**, and nonheating/noncooling end-use load disaggregations from the hourly whole-building electricity load. The three daytypes provide a convenient match to the **heating**, **cooling**, and nonheating/noncooling loads from a simulation program such as DOE-2. Results from the application of the methodology to a case study building located in Washington, DC are presented. In the case study building, end-use loads derived from nine months of hourly whole-building electricity data and site-specific weather data are compared against end-use loads predicted by a calibrated DOE-2 1D simulation of the building. (16 Refs)

Subfile: B C

Descriptors: **cooling**; digital simulation; electric **heating**; load (electric); power consumption; power system analysis computing; space **heating**

Identifiers: weather-daytyping procedure; hourly end-use loads disaggregation; electrically heated building; electrically cooled building; whole-building hourly data; hourly monitoring; hourly end-use loads; nonweather dependent building base load; unoccupied hours; occupied hours; weekday/weekend loads; **heating** load; **cooling** load; noncooling; nonheating; DOE-2 simulation program; 1D simulation

Class Codes: B8540E (Space heating); B8110 (Power systems); C7410B (Power engineering computing)

Copyright 1996, IEE

13/5/6 (Item 6 from file: 2)

DIALOG(R) File 2:INSPEC

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4774243 INSPEC Abstract Number: B9411-8550-003

Title: Solar air conditioners for residential use

Author(s): Onizuka, K.; Sasaki, S.; Koga, K.

Author Affiliation: Air Conditioning Div., Sanyo Electr. Co. Ltd., Japan

Journal: Sanyo Technical Review vol.26, no.1 p.39-44

Publication Date: 1994 **Country of Publication:** Japan

CODEN: STRVD8 **ISSN:** 0285-516X

Language: Japanese **Document Type:** Journal Paper (JP)

Treatment: Practical (P)

Abstract: In the interest of environmental protection, Sanyo have successfully developed and commercialized **air conditioners** powered by

the clean energy of solar batteries. This system is connected to both the utility AC line and solar batteries, which enables it to operate regardless of weather and the time (day or night) of operation. Efficiency has also been upgraded by the use of "Maximum Power Point Tracking" and a "Solar Keep" function to enable operation of the unit with only solar batteries. Approximately 60% of the power utilized by the system can be provided by solar batteries alone. (3 Refs)

Subfile: B

Descriptors: **air conditioning** ; solar cell arrays

Identifiers: solar cells; solar **air conditioners** ; residential use; Sanyo; environmental protection; solar batteries; utility AC line; Maximum Power Point Tracking; Solar Keep function

Class Codes: B8550 (Air conditioning); B8420 (Solar cells and arrays)

13/5/7 (Item 7 from file: 2)

DIALOG(R)File 2:INSPEC

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4745674 INSPEC Abstract Number: B9410-8540-003, C9410-3340H-052

Title: Control system pays off in big energy cost savings

Author(s): Brown, J.

Journal: Power Transmission Design vol.36, no.7 p.13-15

Publication Date: July 1994 Country of Publication: USA

CODEN: PWTDAH ISSN: 0032-6070

U.S. Copyright Clearance Center Code: 0032-6070/94/\$1.25+.60

Language: English Document Type: Journal Paper (JP)

Treatment: Practical (P)

Abstract: Faced with \$2 million in monthly electrical bills and \$400000 in monthly fuel costs at its Endicott, NY facilities, IBM launched a multi-year program in 1985 to cut energy costs. The result is an energy management system that **monitors** and controls **energy usage** for a 125-building complex covering 5 million ft² on two sites. Focusing on HVAC, lighting, and chemical handling operations, this control system nets the company over \$1 million annually in energy savings. Engineers replaced outdated manual controls with a centralized system that **monitors** and controls **energy usage**. The new control system links **personal** computers (PCs), programmable logic controllers (PLCs), and adjustable speed drives with various types of HVAC, lighting, and chemical handling equipment. In addition to controlling processes, the system provides reporting and historical trends, activates alarms, and makes troubleshooting more efficient. (0 Refs)

Subfile: B C

Descriptors: **air conditioning** ; centralised control; economics; energy conservation; **heating** ; lighting; load management; power control; power system computer control; ventilation

Identifiers: energy cost savings; IBM; energy management system; **energy usage monitoring** ; energy usage control; HVAC; lighting; chemical handling operations; energy savings; centralized system; **personal** computers; programmable logic controllers; adjustable speed drives

Class Codes: B8540 (Electric heating); B8550 (Air conditioning); B8110B (Power system management, operation and economics); B0140 (Administration and management); B8530D (Lighting); C3340H (Electric systems); C7410B (Power engineering); C7420 (Control engineering); C3340B (Heat systems); C3110E (Power and energy)

13/5/8 (Item 8 from file: 2)

DIALOG(R)File 2:INSPEC

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4589602 INSPEC Abstract Number: A9405-8610K-021, B9403-8550-003

Title: Overall and zonal energy end use in an energy conscious office building

Author(s): Ashley, R.; Reynolds, J.S.

Author Affiliation: Dept. of Archit., Oregon Univ., Eugene, OR, USA

Journal: Solar Energy vol.52, no.1 p.75-83

Publication Date: Jan. 1994 Country of Publication: USA

CODEN: SRENA4 ISSN: 0038-092X

U.S. Copyright Clearance Center Code: 0038-092X/94/\$6.00+.00

Language: English Document Type: Journal Paper (JP)

Treatment: Practical (P)

Abstract: An office building of unusual design has been monitored for more than three years. Numerous submeters allow **tracking** of **energy end use**. The building was designed to make significant use of daylighting, with some passive solar **heating**, and an emphasis on night ventilation **cooling** of thermal mass. The overall building end usages are compared to those of three zones of varying orientation, spatial character, size, and population. Insights about daylight-sensing controls of indirect electric lighting, "task **heating**", and night ventilation of mass and air quality are presented. (6 Refs)

Subfile: A B

Descriptors: lighting control; passive solar buildings; power consumption ; solar **heating** ; ventilation

Identifiers: energy conscious office building; zonal energy end use; overall energy end use; daylighting; passive solar **heating** ; night ventilation **cooling** ; thermal mass; daylight-sensing controls; indirect electric lighting

Class Codes: A8610K (Solar energy); A8630S (Photothermal conversion); B8550 (Air conditioning); B8530 (Lighting technology)

13/5/9 (Item 9 from file: 2)

DIALOG(R) File 2:INSPEC

(c) 2005 Institution of Electrical Engineers. All rts. reserv.

4470359 INSPEC Abstract Number: B9310-8470-014

Title: The UW-SMES design

Author(s): Boom, R.W.

Author Affiliation: Appl. Superconductivity Center, Wisconsin Univ., Madison, WI, USA

Journal: IEEE Transactions on Applied Superconductivity vol.3, no.1, pt.2 p.320-7

Publication Date: March 1993 Country of Publication: USA

CODEN: ITASE9 ISSN: 1051-8223

U.S. Copyright Clearance Center Code: 1051-8223/93/\$03.00

Conference Title: 1992 Applied Superconductivity Conference

Conference Sponsor: Appl. Superconductivity Conference Inc

Conference Date: 23-28 Aug. 1992 Conference Location: Chicago, IL, USA

Language: English Document Type: Conference Paper (PA); Journal Paper (JP)

Treatment: General, Review (G); Practical (P)

Abstract: The evolution of the University of Wisconsin (UW) superconducting magnetic energy storage (SMES) designs for electric **utility use** is **traced** from 1970 to the present. The UW-SMES design principles were used in the 1987-90 ETM competition by the EBASCO team of subcontractors (UW, Westinghouse, CBI, and Teledyne). Some recent post-ETM design improvements are discussed. The Wisconsin emphasis on 1.8 K pool **cooling**, cryogenic stability, and ripple design is stressed. (23 Refs)

Subfile: B

Descriptors: electricity supply industry; superconducting magnet energy storage

Identifiers: UW-SMES design; University of Wisconsin; superconducting magnetic energy storage; electric utility; pool **cooling** ; cryogenic stability; ripple design; 1.8 K

Class Codes: B8470 (Other energy storage); B3240E (Superconducting coils and magnets)

Numerical Indexing: temperature 1.8E+00 K

13/5/10 (Item 10 from file: 2)

DIALOG(R) File 2:INSPEC

(c) 2005 Institution of Electrical Engineers. All rts. reserv.

04240245 INSPEC Abstract Number: B9211-8230-001

Title: Climate influence on district heating and electricity demands

Author(s): Gustafsson, S.-I.

Author Affiliation: IKP/Energy Syst., Inst. of Technol., Linköping, Sweden

Journal: Applied Energy vol.42, no.4 p.313-20

Publication Date: 1992 Country of Publication: UK

CODEN: APENDX ISSN: 0306-2619

U.S. Copyright Clearance Center Code: 0306-2619/92/\$05.00

Language: English Document Type: Journal Paper (JP)

Treatment: Theoretical (T)

Abstract: The author describes the district **heating** and electricity load of Kalmar, Sweden. Unfortunately, it has not been possible to examine one full year because the **monitoring** of the **energy use** for district **heating** and electricity, and the outdoor temperatures, did not exactly overlap. However, more than 7200 h, of the 8760 in a full year, have been examined. It is shown that the district **heat** load has a far higher correlation with the outdoor temperature (a coefficient of 0.89), than has the electricity load (0.33). Thus, it is much easier to predict the influence of, e.g. an insulation retrofit for the building stock where district **heating** is used compared with electricity space **heating**. It is also shown how an estimate can be made of the thermal transmission factor for the total building stock. (4 Refs)

Subfile: B

Descriptors: district **heating** ; load (electric

Identifiers: district **heating** ; electricity demands; electricity load; Kalmar; Sweden; outdoor temperature; insulation retrofit; electricity space **heating** ; thermal transmission factor

Class Codes: B8230 (Thermal power stations and plants); B8110 (Power systems)

13/5/11 (Item 11 from file: 2)

DIALOG(R) File 2:INSPEC

(c) 2005 Institution of Electrical Engineers. All rts. reserv.

04218176 INSPEC Abstract Number: A9218-8630R-026, B9209-8550-003

Title: Installation and assessment of advanced heat pump-Hydrotech 2000 and direct expansion ground coil-GSDX

Author(s): Cinelli, J.S.; Del Monaco, J.L.; Pandya, D.A.; Salko, J.J.

Author Affiliation: Public Service Electr. & Gas Co., Newark, NJ, USA

Conference Title: IECEC-91. Proceedings of the 26th Intersociety Energy Conversion Engineering Conference p.528-33 vol.2

Publisher: ANS, La Grange Park, IL, USA

Publication Date: 1991 Country of Publication: USA 6 vol. (xvi+507+xii+570+xii+649+xii+575+xii+550+vii+348) pp.

Conference Sponsor: IEEE; ANS; SAE; AIChE; et al
Conference Date: 4-9 Aug. 1991 Conference Location: Boston, MA, USA
Language: English Document Type: Conference Paper (PA)
Treatment: Experimental (X)

Abstract: Public Service Electric & Gas Company (PSE&G), in conjunction with the Electric Power Research Institute (EPRI), the Carrier Corp., and sixteen other utilities, is participating in testing advanced Hydrotech 2000 **heat** pumps. The testing is expected to be concluded in 1991. PSE&G, in conjunction with US Power-Climate Control Inc., is **monitoring** the **energy** **use** of a direct expansion ground coil (GSDX) **heat** -pump-hot-water integrated system. The monitoring will be concluded in 1992. The authors provide an overview of the **customer** and utility experiences with the advanced **heat** pumps during installation, **monitoring**, data collection, and assessment. **Energy** **usage** comparisons with other space conditioning systems in reference to the advanced **heat** pumps are presented. (2 Refs)

Subfile: A B

Descriptors: **air** **conditioning** ; **heat** **pumps**

Identifiers: Public Service Electric & Gas Company; advanced **heat** **pumps** ; energy usage; PSE&G; Electric Power Research Institute; EPRI; Hydrotech 2000; direct expansion ground coil; **heat** -pump-hot-water integrated system ; installation; monitoring; data collection; space conditioning systems

Class Codes: A8630R (Thermal energy conversion (heat engines and heat pumps)); B8550 (Air conditioning)

13/5/12 (Item 12 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2005 Institution of Electrical Engineers. All rts. reserv.

03931122 INSPEC Abstract Number: B91053761

Title: **Operational monitoring of changes in the working efficiency of heat and power plants and power systems**

Author(s): Bairashevskii, B.A.

Journal: Izvestiya Vysshikh Uchebnykh Zavedenii, Energetika no.3 p. 70-5

Publication Date: March 1991 Country of Publication: Byelorussian SSR, USSR

CODEN: IVZEAY ISSN: 0579-2983

Language: Russian Document Type: Journal Paper (JP)

Treatment: Theoretical (T)

Abstract: A simplified analysis is carried out of effect of the size of every production on its main technical and economic indexes. Analyses of statistical read-out data for heat and power plants and power systems as a whole show that, the relationship between the specific fuel consumption and energy supply, and part of the power depleted for **heat** consumption, is linear in character. The study results can be used to organise systematic analyses of read-out data for a number of constants, characteristic of the **energy** sources, and **use** them subsequently for **monitoring** the economic working of the same energy sources under operating conditions. Formulae are derived for calculating specific fuel consumption values, on the basis of read-out data from previous use, and correct these values upon changes in the size of energy production. (4 Refs)

Subfile: B

Descriptors: cogeneration; monitoring; power systems

Identifiers: operational monitoring; **heat** and power plants; power systems; statistical read-out data; specific fuel consumption; energy supply

Class Codes: B8230 (Thermal power stations and plants); B8110 (Power systems); B7200 (Measurement equipment and instrumentation systems)

13/5/13 (Item 13 from file: 2)

DIALOG(R)File 2:INSPEC

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03419463 INSPEC Abstract Number: B89052968, C89051010

Title: Validation of DOE-2.1A and a microcomputer based hourly energy analysis computer program for a residential building

Author(s): Bahel, V.; Said, S.; Abdelrahmen, M.A.

Author Affiliation: Res. Inst., King Fahd Univ. of Pet. & Miner., Dhahran, Saudi Arabia

Journal: Energy vol.14, no.4 p.215-21

Publication Date: April 1989 Country of Publication: UK

CODEN: ENEYDS ISSN: 0360-5442

U.S. Copyright Clearance Center Code: 0360-5442/89/\$3.00+0.00

Language: English Document Type: Journal Paper (JP)

Treatment: Practical (P)

Abstract: A validation study was conducted to determine the accuracy of two hourly energy analysis programs: the mainframe code DOE-2.1A and ADM-2, a microcomputer-based building energy analysis program for predicting the monthly energy use of a residence in Dhahran. In spite of some scatter, the overall agreement between the measured data and the predictions of the two programs are sufficiently close to show that energy-analysis models may be used effectively in predicting annual energy consumption. On an annual basis, the difference between predicted and measured data was 3% for DOE-2.1A and 6% for ADM-2 during the **monitored** period for the residence.

Heating - energy use tended to be more difficult to predict than **cooling** consumption. The dispersion between the measured and predicted values may be attributed to the lack of availability of accurate and sufficiently complete input data, especially on occupant behavior. (9 Refs)

Subfile: B C

Descriptors: microcomputer applications; power engineering computing; power utilisation

Identifiers: **heating** energy; **cooling** consumption; microcomputer based hourly energy analysis; computer program; residential building; mainframe code DOE-2.1A; ADM-2; Dhahran

Class Codes: B8500 (Power utilisation); C7410B (Power engineering)

13/5/14 (Item 14 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2005 Institution of Electrical Engineers. All rts. reserv.

03409062 INSPEC Abstract Number: B89052218

Title: Load shape impacts of the Hood River Conservation Project

Author(s): Stovall, T.K.

Author Affiliation: Div. of Eng. Technol., Oak Ridge Nat. Lab., TN, USA

Journal: Energy and Buildings vol.13, no.1 p.31-7

Publication Date: 10 Feb. 1989 Country of Publication: Switzerland

CODEN: ENEBDR ISSN: 0378-7788

U.S. Copyright Clearance Center Code: 0378-7788/89/\$3.50

Language: English Document Type: Journal Paper (JP)

Treatment: Practical (P)

Abstract: As a part of the Hood River Conservation Project (HRCPP), 320 homes were **monitored** to measure electrical **energy use** on a 15-min basis. The total electrical load, space- **heating** load, water- **heating** load, woodstove **heat** output, and indoor temperature were monitored for one full year both before and after retrofit. Special weather stations

collected detailed local weather information, also on a 15-min basis. This data base was used to evaluate the load savings attributable to HRCF. Two methods of weather normalization were used and showed close agreement. Measurable demand and energy savings were achieved by the HRCF. These savings are significant in magnitude and are available at the time of the system peak load. (6 Refs)

Subfile: B

Descriptors: electricity supply industry; load (electric)

Identifiers: electrical energy use measurement; Hood River Conservation Project; HRCF; total electrical load; space- **heating** load; water- **heating** load; woodstove **heat** output; indoor temperature; load savings; weather normalization

Class Codes: B8110B (Power system management, operation and economics)

13/5/15 (Item 15 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2005 Institution of Electrical Engineers. All rts. reserv.

03293860 INSPEC Abstract Number: B89013560, C89006332

Title: BEMS energy management systems-an overview

Author(s): Rouse, K.

Author Affiliation: BEMS Centre, Bracknell, UK

Journal: Measurement and Control vol.21, no.7 p.207

Publication Date: Sept. 1988 Country of Publication: UK

CODEN: MEACBX ISSN: 0020-2940

Language: English Document Type: Journal Paper (JP)

Treatment: Practical (P)

Abstract: The paper reviews the UK experience of using and operating building energy management systems. Over a decade, microprocessor-based control systems have progressed from being just a tool for the management of some of the services within a building to providing for the effective control of all building services in the total estate. Modern systems can provide direct digital control of all control functions in a building and eliminates the need for conventional controls. They provide more effective management of all energy consuming plant through improved environmental and plant control and can form a vital part of any preventive maintenance programme. The ability to acquire, log and analyse data makes them an indispensable tool for **monitoring** and targetting the **use of energy** within an organisation or company. Difficulties, including the lack of standards, are also discussed. (0 Refs)

Subfile: B C

Descriptors: **air conditioning** ; computerised control; direct digital control; microcomputer applications; space **heating** ; total energy systems; ventilation

Identifiers: data acquisition; data logging; data analysis; BEMS; building energy management systems; microprocessor-based control systems; direct digital control; preventive maintenance programme

Class Codes: B8540 (Electric heating); B8550 (Air conditioning); C3340B (Heat systems); C7420 (Control engineering); C7410B (Power engineering)

13/5/16 (Item 16 from file: 2)

DIALOG(R)File 2:INSPEC

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02816943 INSPEC Abstract Number: B87015548

Title: Modifying the Tashkent steam power station in order to use it for district heating

Author(s): Bulanin, V.A.; Barmin, N.L.

Author Affiliation: Tashkent Steam Power Station, USSR
Journal: Elektricheskie Stantsii no.9 p.36-40
Publication Date: 1986 Country of Publication: USSR
CODEN: EKSTAP ISSN: 0201-4564
Translated in: Soviet Power Engineering T06
Country of Publication: USA
CODEN: SVPEAQ ISSN: 0049-1756
Language: Russian Document Type: Journal Paper (JP)
Treatment: Practical (P)

Abstract: A long-term trend is traced in Soviet power engineering towards the use of combined district heating power stations wherever possible. This presently reflected both in the construction of new stations and in the conversion of obsolete stations. The 2000MW Tashkent steam power station comes into the second category and is particularly suitable for conversion, being only 3 km from a city of three million inhabitants. It is being converted into a base-load source with a thermal power of 2400 MW. The authors analyse the principal design modifications to the twelve existing 160 MW sets, giving the performance figures in their new role. (5 Refs)

Subfile: B

Descriptors: cogeneration; district heating ; steam power stations

Identifiers: obsolete station conversion; cogeneration; Tashkent steam power station; district heating ; Soviet power engineering; construction; city; base-load source; design modifications; performance figures; 2400 MW; 160 MW; 2000 MW

Class Codes: B8230E (Steam power stations and plants)

Numerical Indexing: power 2.4E+09 W; power 1.6E+08 W; power 2.0E+09 W

13/5/17 (Item 17 from file: 2)

DIALOG(R)File 2:INSPEC

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02614738 INSPEC Abstract Number: A86031525

Title: Analysis of LOFT experiment L6-8C-3 using the RELAP5 code

Author(s): Chen, T.H.; Nalezny, C.L.; Modro, S.M.

Author Affiliation: EG&G Idaho Inc., Idaho Falls, ID, USA

Journal: Transactions of the American Nuclear Society vol.50 p. 329-30

Publication Date: 1985 Country of Publication: USA

CODEN: TANSOA ISSN: 0003-018X

Conference Title: American Nuclear Society 1985 Winter Meeting

Conference Sponsor: ANS

Conference Date: 10-14 Nov. 1985 Conference Location: San Francisco, CA, USA

Language: English Document Type: Conference Paper (PA); Journal Paper (JP)

Treatment: Experimental (X)

Abstract: The Loss-of-Fluid Test (LOFT) facility is a 55-MW(t) experimental reactor designed to simulate the major components and system response of a commercial pressurized water reactor (PWR) during hypothetical loss-of-coolant accidents. LOFT experiment L6-8C-3, simulates a small break in the primary coolant system, a transient that has a high probability of occurrence during the lifetime of a commercial PWR. The experiment is designed to investigate a small-break transient with extended operation of the reactor coolant pumps and to demonstrate the use of pump current (or power) monitoring as a diagnostic technique for accident management. Post-experiment calculations are performed with the RELAP5/MOD1 computer code using the specified initial conditions and the measured initial and boundary conditions. The objectives of the calculations are to evaluate the capability of the RELAP5/MOD1 code to calculate the

thermal-hydraulic phenomena that occur during the experiment. (5 Refs)

Subfile: A

Descriptors: accidents; fission reactor **cooling** and **heat** recovery; fission reactor safety; fission research reactors; nuclear engineering computing

Identifiers: Loss-of-Fluid Test facility; LOCA; L6-8C-3; LOFT; experimental reactor; pressurized water reactor; PWR; loss-of-coolant accidents; primary coolant system; small-break transient; reactor coolant pumps; RELAP5/MOD1; thermal-hydraulic phenomena

Class Codes: A2841C (Computer codes); A2843B (Cooling and heat recovery); A2843H (Instrumentation and experiments with fission reactors); A2844 (Fission reactor protection systems, safety and accidents); A2850D (Research, test and training reactors); A2850G (Light water reactors)

13/5/18 (Item 18 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2005 Institution of Electrical Engineers. All rts. reserv.

02467914 INSPEC Abstract Number: A85069924

Title: Advanced technology heavy water monitors offering reduced implementation costs

Author(s): Kalechstein, W.; Hippola, K.B.; Cumming, C.

Issued by: Atomic Energy Canada Ltd., Chalk River, Ont., Canada

Publication Date: Oct. 1984 Country of Publication: Canada 6 pp.

Report Number: AECL-8486

Language: English Document Type: Report (RP)

Treatment: Experimental (X)

Abstract: The development of second generation heavy water **monitors** for **use** at CANDU **power** stations and heavy water plants has been completed and the instruments brought to the stage of commercial availability. Application of advanced technology and reduced utilization of custom manufactured components have together resulted in instruments that are less expensive to produce than the original monitors and do not require costly station services. The design has been tested on two prototypes and fully documented, including the inspection and test procedures required for manufacture to the CSA 2299.3 quality verification program standard. (3 Refs)

Subfile: A

Descriptors: fission reactor **cooling** and **heat** recovery; nuclear reactor instrumentation

Identifiers: second generation heavy water monitors; CANDU power stations; heavy water plants; commercial availability; CSA 2299.3 quality verification program standard

Class Codes: A0130Q (Reports, dissertations, theses); A2843B (Cooling and heat recovery); A2843H (Instrumentation and experiments with fission reactors); A2850J (Heavy water reactors)

13/5/19 (Item 19 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2005 Institution of Electrical Engineers. All rts. reserv.

02433965 INSPEC Abstract Number: A85050489, C85018408

Title: Proportional versus on/off control: a detailed comparison

Author(s): Naumann, P.; Wolfson, R.

Author Affiliation: Dept. of Phys., Middlebury Coll., VT, USA

Journal: Transactions of the ASME. Journal of Solar Energy Engineering vol.106, no.4 p.423-7

Publication Date: Nov. 1984 Country of Publication: USA

CODEN: JSEEDO ISSN: 0199-6231

Language: English Document Type: Journal Paper (JP)

Treatment: Experimental (X)

Abstract: Through a series of single-day experiments, the authors have compared in detail the performance of on/off and proportional control strategies for solar hot water systems. The experiments encompass a variety of meteorological conditions, and include start-up with both warm and cool storage tanks. Insolation, tank temperatures, and pump **energy use** are **monitored** nearly continuously throughout the day. Results show a consistent advantage in thermal energy gain for proportional control, especially under conditions of low or variable insolation, although proportional control requires considerably more parasitic pumping energy under these conditions. (6 Refs)

Subfile: A C

Descriptors: **heat** systems; proportional control; solar power

Identifiers: on/off control; proportional versus on/off control; proportional control strategies; solar hot water systems; thermal energy gain for proportional control

Class Codes: A8610K (Solar energy); C3340B (Heat systems)

13/5/20 (Item 20 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2005 Institution of Electrical Engineers. All rts. reserv.

02424910 INSPEC Abstract Number: B85022176

Title: Monitoring and control using energy management systems

Author(s): Clapp, M.D.

Conference Title: IEE Colloquium on Resource Conservation for the Electrical Engineer (Digest No.62) p.5/1-5

Publisher: IEE, London, UK

Publication Date: 1983 Country of Publication: UK 28 pp.

Conference Sponsor: IEE

Conference Date: 19 April 1983 Conference Location: London, UK

Language: English Document Type: Conference Paper (PA)

Treatment: General, Review (G)

Abstract: The **monitoring** and control of **energy usage** in buildings is a form of process control. Comfort is the process objective in an occupied building and the influential parameters are occupancy level, outside temperature and sun and wind effects on the building, and incidental **heat** gain from office equipment such as copiers, computers. Both temperature and relative humidity levels have an important influence on comfort. Sometimes the buildings have even more exacting requirements than simple comfort. For instance a hospital operating theatre has special needs to minimise risk of explosion of anaesthetics, and to provide optimum healing conditions. Organisations began to appoint energy managers to police the use of energy and more recently to become profit centres with energy budgets. It is quite possible to save 20% of the annual fuel bill by the installation of relatively simple controls. Some of the techniques that have been employed successfully are described. (0 Refs)

Subfile: B

Descriptors: energy resources; management; monitoring

Identifiers: control; energy management systems; monitoring; energy usage in buildings; techniques

Class Codes: B0140 (Administration and management)

13/5/21 (Item 21 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2005 Institution of Electrical Engineers. All rts. reserv.

02225668 INSPEC Abstract Number: B84022963

Title: Evaluation of Exxon Donor Solvent (EDS) coal-derived liquid as utility diesel fuel

Issued by: Electr. Power Res. Inst., Palo Alto, CA, USA

Publication Date: 15 Oct. 1983 Country of Publication: USA 272 pp.

Report Number: EPRI-AP-3224

Availability: Res. Rep. Center, Box 50490, Palo Alto, CA 94303, USA

Language: English Document Type: Report (RP)

Treatment: Experimental (X)

Abstract: Evaluates Exxon Donor Solvent (EDS), coal-derived liquid fuel, as a potential alternative to the diesel fuel used by some utilities in generating electric power. The study consisted of three separate research efforts: laboratory tests characterized physical and chemical properties; it was used as a fuel in another laboratory test on a medium-speed, 12-cylinder diesel engine; and it was field-tested in a 16-cylinder, low-speed diesel engine in an operating utility. Samples of EDS were subjected to standard ASTM fuel tests, combustion characteristics were determined, performance (in terms of **heat rate**) was measured, and emissions were **monitored**. Engine tests in the **utility** diesel engine included **use** of EDS fired alone with ignition assistance, and the use of EDS blends with common diesel fuel.

Subfile: B

Descriptors: electric power generation; fuel; internal combustion engines

Identifiers: coal derived liquid fuel; electric power generations; EDS physical properties; EDS chemical properties; diesel engines; Exxon Donor Solvent; **heat rate**

Class Codes: B8230H (Diesel power stations and plants)

13/5/22 (Item 22 from file: 2)

DIALOG(R) File 2:INSPEC

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01882643 INSPEC Abstract Number: A82062498, B82039426, C82028399

Title: Off-peak power use in passive solar homes. Performance, monitoring, and analysis of periodic heating and cooling in high-mass homes

Author(s): Peck, J.F.; Thompson, T.L.; Kessler, H.J.

Issued by: Electr. Power Res. Inst., Palo Alto, CA, USA

Publication Date: Aug. 1981 Country of Publication: USA 54 pp.

Report Number: EPRI-EM-1966

Availability: Res. Rep. Center, Box 50490, Palo Alto, CA 94303, USA

Language: English Document Type: Report (RP)

Treatment: Experimental (X)

Abstract: Describes the thermal performance of two passive solar homes and an identical standard home used as a control. The peak-hour electrical demand rates of these homes are compared, and off-peak refrigeration of homes with large quantities of thermal mass is discussed. A computer model that is being developed to assess the potential of off-peak refrigeration is also described.

Subfile: A B C

Descriptors: computer aided analysis; solar absorber-convertors; space **heating**

Identifiers: off peak refrigeration; thermal performance; passive solar homes; electrical demand rates; refrigeration; thermal mass; computer model

Class Codes: A8610K (Solar energy); A8630S (Photothermal conversion); B8540E (Space heating); C7490 (Other engineering fields)

13/5/23 (Item 23 from file: 2)

DIALOG(R)File 2:INSPEC

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01821760 INSPEC Abstract Number: B82018775

Title: American Electric Power System electric thermal storage program: an evaluation of performance within the home

Author(s): Coleman, W.R.; Grastataro, C.M.

Author Affiliation: American Electric Power Service Corp., Columbus, OH, USA

Journal: IEEE Transactions on Power Apparatus and Systems vol.PAS-100, no.12 p.4741-9

Publication Date: Dec. 1981 Country of Publication: USA

CODEN: IEPSA9 ISSN: 0018-9510

Language: English Document Type: Journal Paper (JP)

Treatment: Experimental (X)

Abstract: Proper **customer** use and application of Electric Thermal Storage (ETS) space and water **heating** devices on the **customer** -side-of-the-meter indicates that ETS can be considered as a viable utility load management concept. These conclusions are based on a comprehensive analysis of field test results by American Electric Power (AEP) **personnel**. AEP's Residential **Energy** Storage Program **monitored** the **use** of such devices in 71 homes in five of their seven state service areas. Subjective and objective test results indicate positive benefits for the **customer** and the utility. (9 Refs)

Subfile: B

Descriptors: load regulation; space **heating**

Identifiers: performance within home; American Electric Power System; electric thermal storage program; evaluation; water **heating**; viable utility load management concept; field test; Residential Energy Storage Program

Class Codes: B8110B (Power system management, operation and economics); B8540E (Space heating)

13/5/24 (Item 24 from file: 2)

DIALOG(R)File 2:INSPEC

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01746800 INSPEC Abstract Number: A81092954

Title: Influence of floating zone melting conditions on the partition of iron between liquid and solid titaniums: application to the study of flow in the middle of the liquid zone

Author(s): Quenisset, J.M.; Naslain, R.

Journal: Journal of the Less-Common Metals vol.79, no.2 p.169-80

Publication Date: June 1981 Country of Publication: Switzerland

CODEN: JCOMAH ISSN: 0022-5088

Language: French Document Type: Journal Paper (JP)

Treatment: Experimental (X)

Abstract: A new technique for floating zone melting was applied to titanium bars containing up to 800-1500 ppm Fe. It utilizes the variations in the viscous frictional torque induced within the liquid by the fast rotation of the upper part of the ingot to **monitor** the **heating power**. This technique requires the **use** of gas bearings and of an argon atmosphere within the melting chamber, thus reducing the iron volatilization. The partition coefficient of iron between liquid and solid titanium was calculated from the iron concentration profiles along the ingots; it was found to be $k=0.34 \pm 0.02$. The effect of the ingot rotation speed on the thickness of the concentration boundary layer and on fluid flows within the liquid zone was studied. Rotation speeds of the order of 150 rev min/sup -1/ for titanium appear to be optimal for maximum stability

of a floating zone 0.3 cm thick. (9 Refs)

Subfile: A

Descriptors: impurities; iron; solubility; titanium; zone melting

Identifiers: floating zone melting; liquid zone; viscous frictional torque; rotation; ingot; gas bearings; volatilization; partition coefficient; concentration profiles; concentration boundary layer; fluid flows; stability; Fe partition; liquid Ti; Ar atmosphere

Class Codes: A6170W (Impurity concentration, distribution, and gradients); A6475 (Solubility, segregation, and mixing); A8110H (Zone melting and zone refining)

13/5/25 (Item 25 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2005 Institution of Electrical Engineers. All rts. reserv.

01421324 INSPEC Abstract Number: B79045588

Title: Energy conservation, legislation and actual use in buildings

Author(s): Baird, G.

Author Affiliation: Victoria Univ. of Wellington, Wellington, New Zealand

Journal: New Zealand Energy Journal vol.52, no.3 p.24-7, 30-2

Publication Date: 25 March 1979 Country of Publication: New Zealand

CODEN: NZEJDU ISSN: 0110-1668

Language: English Document Type: Journal Paper (JP)

Treatment: Applications (A); Practical (P)

Abstract: Presents some of the data currently emerging from studies of commercial sector energy use in New Zealand. Technical and legislative methods of achieving a reduction in energy consumption are examined: in particular the Colorado ECAC and British PSA methods, the Dubin Mindell and Bloome ECOS and MECOS, ASHRAE Standard 90-75, and the use of 'monitored' energy performance standards. The author concludes with a plea for building operators and designers to become involved in energy monitoring, with a view to the setting of realistic consumption norms. (10 Refs)

Subfile: B

Descriptors: environmental engineering; legislation; lighting; space heating

Identifiers: commercial sector energy use; legislative methods; British PSA methods; 'monitored' energy performance standards; energy conservation; technical methods; energy consumption reduction; Colorado ECAC energy auditing method

Class Codes: B0100 (General electrical engineering topics)

13/5/26 (Item 26 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2005 Institution of Electrical Engineers. All rts. reserv.

01270121 INSPEC Abstract Number: B78051788, C78028782

Title: Computer reduces energy in 30 buildings

Journal: Electric Comfort Conditioning News vol.5, no.2 p.14-16

Publication Date: Feb. 1978 Country of Publication: USA

CODEN: ECCNDA ISSN: 0362-1324

Language: English Document Type: Journal Paper (JP)

Treatment: Applications (A); Economic aspects (E); Practical (P)

Abstract: Dramatic savings in electrical energy costs have been achieved by using a computerized energy management system. The key element in the system, which is operated by International Energy Conservation Systems, Inc. (IECS), is a central computer shared by all the users and connected via telephone lines to each building's electrical systems. The computer system, based on a Hewlett-Packard 21MX computer with capability to operate

up to 64 facilities simultaneously monitors energy use on a second-by-second basis. It regulates the level of operation of heating, ventilating and air conditioning (HVAC) systems and other power-consuming devices according to predetermined goals for peak demand, energy efficiency and comfort levels. (0 Refs)

Subfile: B C

Descriptors: air conditioning ; building; economics; power system computer control; space heating ; total energy systems

Identifiers: costs; energy management system; heating ; ventilating; air conditioning ; peak demand; energy efficiency; comfort levels; total energy system; power system computer control

Class Codes: B8110B (Power system management, operation and economics); B8120 (Power transmission, distribution and supply); C3340H (Electric systems); C7410B (Power engineering); C7420 (Control engineering)

13/5/27 (Item 1 from file: 35)

DIALOG(R) File 35:Dissertation Abs Online

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01594294 ORDER NO: AADMM-18796

AN EVALUATION OF THE POTENTIAL FOR IMPROVED ENERGY EFFICIENCY AT A DAYLIT HIGH SCHOOL

Author: GALASIU, ANCA DIANA

Degree: M.SC.

Year: 1996

Corporate Source/Institution: UNIVERSITY OF CALGARY (CANADA) (0026)

Adviser: JIM LOVE

Source: VOLUME 35/06 of MASTERS ABSTRACTS.

PAGE 1843. 137 PAGES

Descriptors: ENGINEERING, CIVIL ; ENGINEERING, MECHANICAL ; ARCHITECTURE ; ENERGY

Descriptor Codes: 0543; 0548; 0729; 0791

ISBN: 0-612-18796-9

In this study, the field performance of an existing daylight building was investigated. The DOE-2.1E building energy simulation program was used to model the energy performance characteristics of the building using site-measured meteorological data. Comparisons between calculated and field-monitored energy use were performed for a one-year period. Using the computer model as a base case, the effects of alternative daylighting strategies on the total energy consumption were investigated and parametric studies were conducted to determine the interdependence of three environmental control elements: electric lighting, glazing and ventilation. The results show that significant energy savings can be achieved by reducing the electric energy required for illumination. However, an energy efficient design cannot be accomplished by considering lighting issues only. In this study, ventilation was shown to be the major end use of electric energy (33 percent) while heating and cooling of spaces accounted for less than 10 percent each.

13/5/28 (Item 2 from file: 35)

DIALOG(R) File 35:Dissertation Abs Online

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01102284 ORDER NO: AAD89-24077

PRODUCT YIELD, ENERGY USAGE, HEATING TIME AND QUALITY OF TURKEY ROLLS FOR FOODSERVICE SYSTEMS

Author: HSIEH, JEAN HORNG

Degree: PH.D.
Year: 1989
Corporate Source/Institution: THE UNIVERSITY OF WISCONSIN - MADISON (0262)
Supervisor: MARY EILEEN MATTHEWS
Source: VOLUME 50/12-B OF DISSERTATION ABSTRACTS INTERNATIONAL.
PAGE 5400. 143 PAGES
Descriptors: AGRICULTURE, FOOD SCIENCE AND TECHNOLOGY
Descriptor Codes: 0359

Product yield and numbers of portions, energy usage, **heat** processing time and the nutritional quality (thiamin retention and moisture content) of turkey rolls after **heat** processing at three oven temperatures (105, 135 or 165 \circ C) and three oven load sizes (2, 4 or 6 rolls) in a convection oven for foodservice systems were investigated. Actual data of product yield, numbers of portions, **energy usage**, and **heat** processing time were **monitored**. Thiamin retention and moisture content of turkey rolls were analyzed using the thiochrome assay and AOAC method, respectively. Results indicated that lower oven temperature with longer cooking time resulted in greater product yields. Product yield was not significantly different among three oven load sizes. Regression analysis showed that the oven temperature setting and the final temperature of the product influenced ($R^2 = 87\%$) product yield of turkey rolls. Numbers of portions can be predicted once the product yield is estimated. Higher oven temperature or greater oven load size caused more ($p \leq 0.05$) energy usage of the oven. The oven temperature setting and the length of **heating** time determine the energy usage of the convection oven. An energy usage estimation model was developed so energy used at a designated oven temperature can be estimated by using the following information: the amount of the raw product, energy usage per pound of raw product, energy ratings for the convection oven to warm up and maintain the oven temperature, times to warm up the oven and length of **heating** time. **Heat** processing time can be estimated once the oven temperature setting and the oven load size are designated. The warm up time for the convection oven at different oven temperatures and different oven load sizes can be predicted from the regression equation. Thiamin retention was significantly ($p \leq 0.05$) lower with higher oven temperature settings and dark turkey meat. Moisture content was significantly ($p \leq 0.05$) lower with dark turkey meat. Findings and methods developed in this study could provide foodservice managers with useful information to assist them in daily operational decision making on the production of menu items for the foodservice systems.

13/5/29 (Item 1 from file: 99)
DIALOG(R)File 99:Wilson Appl. Sci & Tech Abs
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2486491 H.W. WILSON RECORD NUMBER: BAST94002996
Strathclyde University's passive solar, low-energy, residences with transparent insulation
Twidell, J. W; Johnstone, C; Zuhdy, B
Solar Energy v. 52 (Jan. 1994) p. 85-109
DOCUMENT TYPE: Feature Article ISSN: 0038-092X LANGUAGE: English
RECORD STATUS: Corrected or revised record

ABSTRACT: These innovative buildings for 376 students are described from planning to the results of 3 years monitoring. They are to date the World's largest demonstration of Transparent Insulation, being a Demonstration Project supported by the European Community and Scottish

Enterprise. The factors considered are: design, construction, occupation, comfort, energy characteristics, performance of the Transparent Insulation, including staining by pollution, overall energy consumption, cost effectiveness, practical aspects and important lessons learned.

Monitoring shows that commercial **energy use** is 40% less than the "good" category of official UK indicators and a survey quantifies encouraging **user** satisfaction generally. The solar fraction of useful gain in winter is 20% of total energy. The south faces of the building have a monthly net gain of energy into the building throughout the year even in mid winter in Glasgow. Copyright 1994, Pergamon Press Ltd. .

DESCRIPTORS: Dormitories-- **Heating , cooling ,** etc; Transparent insulation; College buildings--Designs and projects; Buildings--Energy usage;

13/5/30 (Item 2 from file: 99)

DIALOG(R)File 99:Wilson Appl. Sci & Tech Abs
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2286082 H.W. WILSON RECORD NUMBER: BAST00069520

Energy savings from the ground up

Dukart, James R;

Electrical Construction and Maintenance Energy Manager (Oct. 2000) p. 96F-96I

DOCUMENT TYPE: Feature Article ISSN: 0013-4260 LANGUAGE: English

RECORD STATUS: Corrected or revised record

ABSTRACT: The energy-saving strategies being employed at the new Sprint World Headquarters Campus, currently under construction in Kansas City, Missouri, are discussed. This 200-acre site will accommodate over 14,500 employees. The main energy-saving strategy is the building automation system, which will **monitor** and control the site's **energy usage** . Other measures include an efficient **heating , ventilation, and air conditioning** system and rainwater collecting equipment on all the roofs.

DESCRIPTORS: Buildings-- **Heating , cooling ,** etc; Energy management systems; Building automation systems;

13/5/31 (Item 3 from file: 99)

DIALOG(R)File 99:Wilson Appl. Sci & Tech Abs
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2077417 H.W. WILSON RECORD NUMBER: BAST99055135

Use **OPR** to monitor power **-generation water systems**

Filer, Shane;

Chemical Engineering Progress v. 95 no8 (Aug. 1999) p. 61-6

DOCUMENT TYPE: Feature Article ISSN: 0360-7275 LANGUAGE: English

RECORD STATUS: Corrected or revised record

ABSTRACT: The use of oxidation/reduction-potential-based (ORP) techniques in the monitoring of **cooling** water and boiler feedback in an industrial power plant is discussed. This type of technique has several applications in industrial plant power systems for the minimization of microbiological growth. The theory behind ORP is outlined, and the correct measurement techniques to use to take advantage of a plant's ORP data are discussed.

DESCRIPTORS: **Cooling** water--Bacteriology; Feed water--Testing; Electric potential--Measurement;

13/5/32 (Item 4 from file: 99)

DIALOG(R)File 99:Wilson Appl. Sci & Tech Abs
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1836819 H.W. WILSON RECORD NUMBER: BAST99012572

Development of an inverse method to estimate overall building and ventilation parameters of large commercial buildings

Reddy, T. A; Deng, S; Claridge, D. E

Journal of Solar Energy Engineering v. 121 no1 (Feb. '99) p. 40-6

DOCUMENT TYPE: Feature Article ISSN: 0199-6231 LANGUAGE: English

RECORD STATUS: Corrected or revised record

ABSTRACT: The authors propose an inverse method to approximate building and ventilation parameters from non-intrusive **monitoring of heating and cooling thermal energy use** of large commercial buildings. This method has been shown to eliminate much of the bias introduced in a multiple linear regression approach with correlated regressor variables. It was found that the parameter identification process is very accurate when daily data over an entire year are employed.

DESCRIPTORS: Commercial buildings-- **Heating , cooling , etc**; Ventilation; Parameter estimation;

13/5/33 (Item 5 from file: 99)

DIALOG(R)File 99:Wilson Appl. Sci & Tech Abs
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1797530 H.W. WILSON RECORD NUMBER: BAST98009990

Case three: system integration improves delivery of health care in Duluth

Heating/Piping/Air Conditioning v. 70 (Jan. '98 supp) p. 61+

DOCUMENT TYPE: Feature Article ISSN: 0017-940X LANGUAGE: English

RECORD STATUS: Corrected or revised record

ABSTRACT: The Metasys Facility Management System was selected to link 5 hospital buildings in Duluth, Minnesota, into one facility management network to monitor and enhance operating efficiency. Ron Daigle, **heating , ventilation, and air - conditioning** lead man at the hospital, maintains that Metasys has helped **monitor energy usage** and identify problem areas while reducing the energy bill below its 1984 level.

DESCRIPTORS: Health facilities-- **Heating , cooling , etc**; Building automation systems;

13/5/34 (Item 6 from file: 99)

DIALOG(R)File 99:Wilson Appl. Sci & Tech Abs
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1767865 H.W. WILSON RECORD NUMBER: BAST98024865

Mother Earth warms up the Golden Arches

Electronics Now v. 69 no4 (Apr. '98) p. 16

DOCUMENT TYPE: Feature Article ISSN: 1067-9294 LANGUAGE: English

RECORD STATUS: Corrected or revised record

ABSTRACT: A McDonald's restaurant in the Detroit area has become one of the first in the chain to use the earth for **heating and cooling** . With the help of Detroit Edison and the Electric Power Research Institute, the

restaurant installed a geothermal **heat** pump system, which will provide natural, environmentally safe energy. Taking advantage of the earth's stable temperature, geothermal **heat** pumps can economically and efficiently utilize solar energy from the earth to **heat** water and **heat** or cool buildings. McDonald's will **monitor** the **energy** **usage** of the restaurant, assessing the results and exploring the potential of the geothermal technology to save money.

DESCRIPTORS: Restaurants-- **Heating** , **cooling** , etc; McDonald's Corp;

13/5/35 (Item 7 from file: 99)

DIALOG(R)File 99:Wilson Appl. Sci & Tech Abs

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1560219 H.W. WILSON RECORD NUMBER: BAST95015227

The functional basis of steady-state thermal energy use in air-side HVAC equipment

Reddy, T. A; Katipamula, S; Kissock, J. K

Journal of Solar Energy Engineering v. 117 (Feb. '95) p. 31-9

DOCUMENT TYPE: Feature Article ISSN: 0199-6231 LANGUAGE: English

RECORD STATUS: Corrected or revised record

ABSTRACT: Closed-form steady-state functional relations are derived for air-side **cooling** and **heating** thermal energy use for 4 of the most widespread **heating** , ventilation, and **air conditioning** (HVAC) system types. The system types are terminal reheat and dual-duct, both under constant air volume and under variable air volume operation. Expressions are formulated for hourly **energy** **use** as a function of climatic variables, building characteristics, and system parameters. These expressions could be used to develop functionally accurate regression models of **monitored energy** **use** for retrofit savings determination, to ascertain whether the HVAC system is operating correctly, to estimate parameters from short-term or long-term monitoring, and to analyze how various physical and operating parameters affect energy use.

DESCRIPTORS: Buildings--Energy usage; **Air conditioning** equipment--Mathematical models; **Heating** equipment--Mathematical models;

13/5/36 (Item 8 from file: 99)

DIALOG(R)File 99:Wilson Appl. Sci & Tech Abs

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1182329 H.W. WILSON RECORD NUMBER: BAST94050956

Solar thermal power today and tomorrow

Mancini, Thomas R; Chavez, James M; Kolb, Gregory J

Mechanical Engineering v. 116 (Aug. '94) p. 74-9

DOCUMENT TYPE: Feature Article ISSN: 0025-6501 LANGUAGE: English

RECORD STATUS: New record

ABSTRACT: The U.S. Department of Energy has entered into a number of cost-shared agreements with industry to develop commercial solar thermal power systems. The 3 types of solar thermal power are trough-electric, power towers, and dish/Stirling. Trough-electric systems use parabolic trough concentrators to concentrate the sunlight on a glass-encapsulated tube that runs along the focal line of the collector. **Power** towers **use** a field of 2-axis **tracking** mirrors, called heliostats, to reflect the solar energy onto a receiver mounted on top of a centrally located tower. The dish/Stirling system consists of a parabolic concentrator or dish, a thermal receiver, and a **heat** engine/generator. The system tracks the Sun

and reflects the solar energy to the focus of the dish, where it is absorbed by the receiver. The development and performance of solar thermal power systems are discussed.

DESCRIPTORS: Solar collectors--Performance;

13/5/37 (Item 1 from file: 474)

DIALOG(R)File 474:New York Times Abs

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00396484 NYT Sequence Number: 051824731129

(Com for an Adequate Supply of Energy and Con Ed are conducting campaign to teach bldg owners and mgrs how to save energy; hold 1st class Nov 28; Con Ed is supplying posters and decals for light switches; R B Stevens, Con Ed vp, says 3 things are necessary for success of campaign: real commitment by top management, maintaining facilities at peak efficiency and continuous monitoring of energy use ; class was attended by 200 persons representing 500 of largest office bldgs in NYC)

New York Times, Col. 4, Pg. 20

Thursday November 29 1973

DOCUMENT TYPE: Newspaper JOURNAL CODE: NYT LANGUAGE: English

RECORD TYPE: Abstract

COMPANY NAMES: ENERGY, COMMITTEE FOR AN ADEQUATE SUPPLY OF

DESCRIPTORS: ELECTRIC LIGHT AND POWER; ENERGY AND POWER; HEATING ;

LIGHTING; OFFICE BUILDINGS; OIL (PETROLEUM) AND GASOLINE; SHORTAGES

PERSONAL NAMES: LISSNER, WILL; STEVENS, ROBERT B

GEOGRAPHIC NAMES: NEW YORK CITY; UNITED STATES (1973 PART 1)

13/5/38 (Item 2 from file: 474)

DIALOG(R)File 474:New York Times Abs

(c) 2005 The New York Times. All rts. reserv.

00396334 NYT Sequence Number: 051674731129

(Com for Adequate Supply of Energy on Nov 28 holds meeting in effort to instruct group of bldg owners and mgrs on how to save electricity and steam to counter energy crisis; Consol Edison is providing posters urging energy conservation and decals for light switches; Consol Edison vp R B Stevens holds campaign will not be successful unless there is real commitment by top business mgt, maintenance of facilities at peak efficiency despite cost and continuous monitoring of energy use ; Consol Edison bldg mgr J J Tosloskie says program seeks to persuade execs and office staffs to turn out lights when not needed; meeting is attended by 200 men and women representing 500 of largest bldgs in city; Consol Edison vp M G Schwartz urges bldg operators to buy \$20 light meter)

New York Times, Col. 4, Pg. 20

Thursday November 29 1973

DOCUMENT TYPE: Newspaper JOURNAL CODE: NYT LANGUAGE: English

RECORD TYPE: Abstract

COMPANY NAMES: CONSOLIDATED EDISON CO OF NY INC; ENERGY, COMMITTEE FOR AN ADEQUATE SUPPLY OF

DESCRIPTORS: DECALS; ELECTRIC LIGHT AND POWER; ENERGY AND POWER; HEATING ; INSULATION; LIGHTING; POSTERS; SHORTAGES; STEAM

PERSONAL NAMES: LISSNER, WILL; SCHWARTZ, MELVIN (CO EXEC); STEVENS, ROBERT B; TOSLOSKIE, JOHN J

GEOGRAPHIC NAMES: NEW YORK CITY METROPOLITAN AREA

13/5/39 (Item 1 from file: 583)

DIALOG(R)File 583:Gale Group Globalbase(TM)
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09479058

Daikin Plant Sets Up Energy Conservation Diagnostic Business

JAPAN: DAIKIN PLANT OFFERS SMART FACTORY SYSTEMS

The Nikkei Weekly (NW) 1 Mar 2001 online

Language: ENGLISH

Energy-efficient systems and specialised software are to be offered by a new firm of Daikin Plant Co to factories to conserve **energy**. The software **monitors power usage of individual** and entire production lines. Both the software and Daikin Plant's hydraulic systems are equipped with thermostats for temperature control. Daikin Plant Co is a control systems and large **air conditioning** equipment vendor from Japan. *

COMPANY: DAIKIN PLANT

EVENT: Product Design & Development (33); Use of Energy (47);

COUNTRY: Japan (9JPN);

13/5/40 (Item 2 from file: 583)

DIALOG(R)File 583:Gale Group Globalbase(TM)
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06328611

Honeywell contracts

RUSSIA: US HONEYWELL WINS **HEATING CONTRACTS**

The Moscow Times (ZTE) 20 Jun 1996 p.11

Language: RUSSIAN

the US based company Honeywell has won district **heating** contracts in Russia, total worth US\$ 5 mn. Honeywell supplies control and **monitoring** systems that will save **energy**, improve **energy use** efficiency and reduce air pollution in the central Russian towns of Tver and Vladimir and in the north-western Murmansk, in Kola peninsula. The money comes from the US agency USAid.

COMPANY: USAID; HONEYWELL

PRODUCT: **Heating** Equip ex Electric (3433); Combined Heat & Power (4911CH); Steam Supply (4960);

EVENT: Foreign Trade (64); Capital Expenditure (43); Use of Materials & Supplies (46); Contracts & Orders (61);

COUNTRY: Russia (6USSRU); United States (1USA);

13/5/41 (Item 3 from file: 583)

DIALOG(R)File 583:Gale Group Globalbase(TM)
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04224079

LOW-ENERGY HOSPITAL OPENS

UK - LOW-ENERGY HOSPITAL OPENS

Daily Express (DEX) 22 April 1991 p27

St Mary's Hospital on the Isle of Wight has opened the world's first low-energy hospital. The GBP29 mil building features **heat** recovery and

reduced energy demand techniques; an **energy** centre to **monitor** its use of **power** , ensuring efficiency; low-energy fluorescent lamps; stainless steel cladding to reduce **cooling** loads; and architectural designs to make use of daylight. The hospital was originally due to open in September 1989.*

PRODUCT: Intelligent Buildings Construction (1500IB); Hospitals Construction (1542HO);
EVENT: LAND USE/PURCHASE/SALES (41);
COUNTRY: United Kingdom (4UK); OECD Europe (415); NATO Countries (420); South East Asia Treaty Organisation (913);

13/5/42 (Item 1 from file: 256)
DIALOG(R) File 256:TecInfoSource
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00127456 DOCUMENT TYPE: Review

PRODUCT NAMES: Telemedicine (834114)

TITLE: Digital Angel Is Watching You: Bio-digital implants that monitor...
AUTHOR: Overton, Rick
SOURCE: Business 2.0, v5 n24 p100(3) Dec 26, 2000
ISSN: 1080-2681
HOMEPAGE: <http://www.business2.com>

RECORD TYPE: Review
REVIEW TYPE: Product Analysis
GRADE: Product Analysis, No Rating

Digital Angel, a 'wireless medical tracking technology' under development in New York, is a device no larger than a dime that could eventually, for instance, use biosensors to monitor many types of diseases, including diabetes or a heart condition. Components include a biosensor for monitoring various health conditions; a GPS receiver that homes in on the exact coordinates of the wearer; and a wireless transceiver that sends diagnostic and location information over a wireless data network to a computer in the wearer's physician's office. Digital Angel represents the melding of new technologies that affect both health care and public policy in new ways. Biodigital convergence will proms better mobility for **people** being medically monitored and would allow painless diagnostic procedures for diabetics and other patients. Biosensors as tiny as a grain of rice could **track** vital signs, then **use** body **heat** to **power** a transmitter that sends the results for analysis. There are some **personal** privacy and freedom considerations to be resolved, and because work on biosensors is progressing quickly, they will have to be answered expeditiously. Applied Digital Solutions (ADS) an Internet telephony company, paid the inventor of Digital Angel, Paul Gargano, for the patent rights to a **personal** tracking and recovery system. Topics covered include a possible strategy for making a business of Digital Angel; **personal** freedom issues; and secret, patented technology that converts body **heat** into power.

COMPANY NAME: Vendor Independent (999999)
DESCRIPTORS: Disease Control; GPS; Health Care; Mobile Computing; Patient Care; Telemedicine; Wireless Internet
REVISION DATE: 20030330